IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of fabricating a set of semiconducting nanowires having a desired wire diameter, the method comprising the acts of:

providing a set of pre-fabricated semiconducting nanowires, at least one pre-fabricated semiconducting nanowire having a wire diameter larger than the desired wire diameter;

reducing the wire diameter of the at least one pre-fabricated nanowire by etching, the etching being induced by electromagnetic radiation which is absorbed by the at least one pre-fabricated nanowire;

selecting a minimum wavelength of the electromagnetic radiation such that the absorption of the at least one pre-fabricated nanowire is significantly reduced when the at least one pre-fabricated nanowire reaches the desired wire diameter; and

stopping the electromagnetic radiation when continuing the electromagnetic radiation does not substantially change the desired wire diameter.

2. (Previously Presented) The method as claimed in claim 1, wherein:

a radiation source is used which emits the electromagnetic radiation inducing the etching and electromagnetic radiation having a wavelength shorter than the minimum wavelength, and

the electromagnetic radiation emitted by the radiation source is spectrally filtered for substantially reducing electromagnetic radiation having a wavelength shorter than the minimum wavelength.

3. (Currently Amended) The method as claimed in claim 1, wherein prior to the reducing act, the wire diameter substantially all the pre-fabricated semiconducting nanowires have a diameter larger than ~~or equal~~ to the desired wire diameter.

4. (Previously Presented) The method as claimed in claim 1, wherein the light inducing the etch treatment is linearly polarized along an axis.

5.(Previously Presented) The method as claimed in claim 1, wherein the light inducing the etch treatment has a first component being linearly polarized along a first axis and a second component being linearly polarized along a second axis forming an angle larger than zero with the first axis.

6.(Previously Presented) The method as claimed in claim 5, the first component has a first spectrum with a first minimum wavelength and the second component has a second spectrum with a second minimum wavelength different from the first minimum wavelength.

7.(Previously Presented) The method as claimed in claim 5, wherein the first component has a first intensity and the second component has a second intensity different from the first intensity.

Claims 8-9 (Canceled)

10.(Previously Presented) The method as claimed in claim 1,

wherein the pre-fabricated semiconducting nanowires are supported by a substrate.

11.(Previously Presented) The method as claimed in claim 10, wherein the substrate comprises an electrical conductor, the pre-fabricated semiconducting nanowires being electrically conductively connected to the electrical conductor.

12.(Previously Presented) The method as claimed in claim 10, wherein the substrate has a surface constituted by a first part supporting the pre-fabricated semiconducting nanowires and a second part being free from the first part, at least the second part being etch resistant.

13.(Previously Presented) The method as claimed in claim 12, wherein the substrate comprises a first layer which is not etch resistant, and a second layer which is etch resistant, the second layer constituting the second part of the surface.

14.(Previously Presented) The method as claimed in claim 13, wherein the second layer is connected to the first layer by a

chemical bond.

15. (Previously Presented) The method as claimed in claim 13, wherein the second layer is composed of one or more materials selected from alkyltriethoxysiloxane and alkyltrimethoxysiloxane.

16. (Currently Amended) The method as claimed in claim 10, wherein the providing act comprises the following acts :

providing the substrate, a surface of the substrate being etchable, and

growing semiconducting nanowires on the surface of the substrate, the grown semiconducting nanowires being the pre-fabricated semiconducting nanowires, and the substrate having an exposed surface between the pre-fabricated semiconducting nanowires,

and after the providing act and prior to the reducing act, the exposed surface of the substrate is covered by an etch resistant layer.

17. (Currently Amended) The method as claimed in claim 10, wherein the pre-fabricated semiconducting nanowires are distributed

over ~~the surface~~ a surface of the substrate, a first part of the surface being irradiated by light for inducing the etch treatment, pre-fabricated semiconducting nanowires in a second part of the surface being prevented from etching.

18. (Currently Amended) The method as claimed in claim 10, wherein the pre-fabricated semiconducting nanowires are distributed over ~~the surface~~ a surface of the substrate, a first part of the surface ~~area~~ being irradiated by a first light intensity, a second part of the surface free from the first part of the surface being irradiated by a second light intensity smaller than the first light intensity.

19. (Currently Amended) The method as claimed in claim 10, wherein the pre-fabricated semiconducting nanowires are distributed over ~~the surface~~ a surface of the substrate, a first part of the surface being irradiated by light having a first minimum wavelength, a second part of the surface being irradiated by light having a second minimum wavelength different from the first minimum wavelength.

Claims 20-29 (Canceled)

30. (Previously Presented) The method of claim 1, further comprising the acts of:

doping a first part of the at least one pre-fabricated semiconducting nanowire to form a p-doped nanowire; and

doping a second part of the at least one pre-fabricated semiconducting nanowire to form a n-doped nanowire;

wherein the reducing act reduces a diameter of the p-doped nanowire to be smaller than a diameter of the n-doped nanowire so that the p-doped nanowire emits radiation of reduced wavelength as compared to a p-doped nanowire with an unreduced diameter, and the n-doped nanowire provides higher current as compared to an n-doped nanowire with a reduced diameter.